

PATENT SPECIFICATION

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COMPLETE SPECIFICATION

A Device for removing Plaster Casts from Living Bodies

We, SCINTILLA LIMITED, whose alternative names are SCINTILLA S.A. and SCINTILLA A.—G., of Soleure, Switzerland, a Swiss Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to an apparatus for removing plaster casts and the like, such as are, for example, mounted about the limb of a human being when a bone has been broken.

More particularly, the present invention relates to an apparatus for cutting such a plaster cast while it is located on the limb.

Such plaster casts are usually made up of bandages embedded in plaster and are quite difficult to remove without causing further injury or discomfort to the person or animal carrying the plaster cast.

One of the objects of the present invention is to provide an apparatus capable of quickly and easily removing a plaster cast without causing any appreciable discomfort.

The invention consists in a device for removing plaster casts from a living body, characterised in that it is constructed as a combined interacting sawing and shearing means.

An example of construction of the invention is shown in the accompanying drawing, in which:

Figure 1 shows the front of a hand machine with electric motor, fitted out with the device.

Figure 2 is a partial front view of Figure 1, i.e. turned through an angle of 90° in relation to Figure 1.

Figure 3 is a section on the line II—II in Figure 1 through a part of the appliance.

Figure 4 shows a section on the line I—I in Figure 1.

According to this example, in a head-piece 1 connected to the device, an oscillating tool 2 is mounted freely, so that it may be moved up and down in rapid succession by means of motor mechanism. The tool 2 is flat in

form and has saw teeth 3 extending over the length of its front edge. Its free end at the bottom is sharpened on one side in the form of a chisel, as at 4, and the cutting edge thus formed is arranged obliquely to the row of saw teeth.

The device is provided with a supporting foot 5 so that it may be guided by hand. The supporting foot 5 is adapted to slide between the plaster cast and a limb carrying same, and in this way prevents damage or discomfort to the latter whilst the plaster cast is being removed. The supporting foot has a very small bearing surface and is well rounded on all sides, so that, when changes in direction occur during operation, it does not give rise to resistance likely to impede the operation. Its upper part is so constructed that a counter edge 6 for the shearing device is formed, which faces upwards and interacts with the cutting edge 4.

The saw teeth of the tool 2 are so arranged that the shearing strokes will coincide with the idle strokes of the saw; unequal loading of the appliance is thus avoided. The toothed part is moreover sharply relieved in the form of a dove-tail, as at 7, so that the tool may cut freely.

The supporting foot 5 is connected to the adjacent casing of the device by means of a relatively wide web 8, the thickness of which is approximately the same as that of the ground back part of the tool 2. The front edge of the web 8 is parallel to the rear surface of the oscillating tool and the intermediate space between them is very slight, so that, during operation, the rear surface of the tool can bear against the web and find support thereon.

The apparatus is portable and may be held in the hands of the operator. An electric cord may extend from a motor of the apparatus and be plugged in to any available electric supply source. In using the apparatus the foot member 5 is placed between the limb and the cast carried thereby and the apparatus is held with the cutting edge 6 located at the inside

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of the cast while the cutting edge 4 faces the outside thereof. When the apparatus is turned on the cutting edge 4 moves toward and away from the cutting edge 6 to produce the shearing action, the actual cutting stroke taking place only during movement of the cutting edge 4 toward the cutting edge 6.

What we claim is:—

1. A device for removing plaster casts from a living body, characterised in that it is constructed as a combined interacting sawing and shearing means.

2. A device as claimed in Claim 1 embodying an oscillating tool freely mounted in the head of same, which has a saw toothing along the length of its side, and a shear cutting edge on its free end arranged obliquely to the row of saw teeth.

3. A device as claimed in Claim 1 or Claim 2 having a supporting foot, part of which is constructed as a counter cutting edge to the

cutting edge of the oscillating tool and interacts with the latter.

4. A device as claimed in any of Claims 1 to 3 wherein the saw teeth are so arranged that the shearing stroke of the tool coincides with the idle stroke of the saw.

5. A device as claimed in any of Claims 2 to 4, wherein that part of the tool immediately behind the saw teeth is sharply relieved in the form of a dove-tail.

6. A device as claimed in any of Claims 3 to 5 wherein the supporting foot is connected to the casing of the device by means of a wide web, the thickness of which is approximately the same as that of the ground back part of the oscillating tool, so that it supports the latter during operation.

7. A device for removing plaster casts substantially as hereinbefore described and as shown in the accompanying drawings.

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Fig. 1

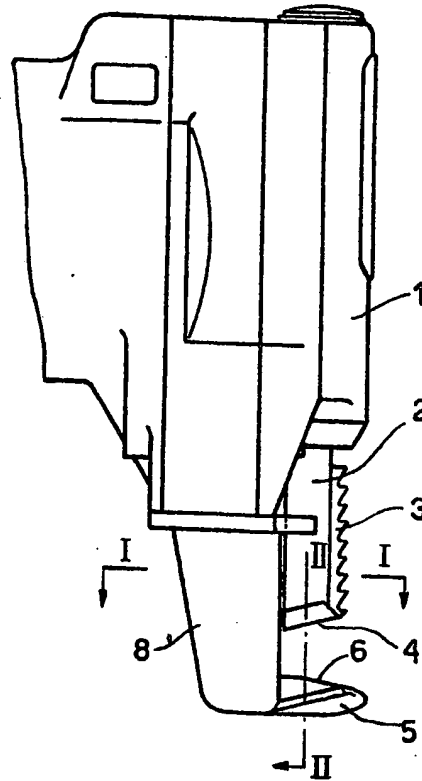


Fig. 2

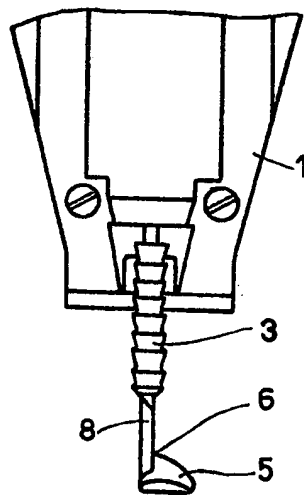


Fig. 3

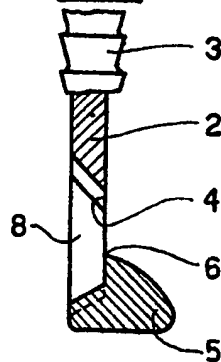


Fig. 4

